Sorting mutual funds with respect to process-oriented social responsibility: A FLOWSORT application

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Abstract

We establish a robust FLOWSORT-based tool to sort mutual funds with respect to process-oriented social responsibility and recommend the use of limiting profiles with open classes. The tool provides an alternative for the limited dichotomous classification of funds, i.e. socially responsible investing (SRI) versus conventional funds. By allowing for more heterogeneity in social responsibility the sorting tool is promising for scholars to improve fund performance measurements, and useful for governments to better regulate the supply of SRI products.

Keywords: FLOWSORT; multi-criteria decision analysis; socially responsible investing

Word count: 1,829

1. Introduction

Over the course of the last decade, socially responsible investing (SRI) has become a mainstream investment strategy. Instead of only considering financial objectives, many investors now take into account environmental, social and governance issues as well. A typical motivation for SRI is trying to do financially well while doing socially good. However, researchers are interested in the question whether SRI makes financial sense as well. Implementing multi-factor asset pricing regressions, which take into account several factors of risk, most researchers either find a significant underperformance of SRI funds, or no performance differential at all. The problem with the current approach is that no heterogeneity in terms of social responsibility is taken into account, as risk-adjusted returns from both a sample of SRI and conventional funds are simply tested for statistical significant differences. Hence the investment universe is falsely reduced to SRI vs. non-SRI. For a more comprehensive overview of the literature, we refer to several excellent review papers (e.g. Margolis & Walsh, 2003; Orlitzky, Schmidt, & Rynes, 2003).

A helpful way to circumvent the dichotomous SRI versus conventional fund approach is multi-criteria decision analysis (MCDA). This operations research/decision sciences methodological framework provides the tools to deal with situations that call for simultaneous consideration of multiple conflicting decision factors. Five steps are central to MCDA (Belton & Stewart, 2002): establishing assessment criteria, defining alternatives, scoring alternatives, weighting criteria and aggregating all of this information. MCDA can address four types of "problematiques" (Roy, 1996): picking, sorting, ranking and describing. In this paper, we present a MCDA *sorting tool* as a way to distinguish funds based on process-oriented social responsibility criteria. A MCDA-based *scoring tool* has already been presented by Verheyden and De Moor (2014). The benefit of sorting over scoring tools is that the significance of small performance differentials is reflected in the fact whether a fund is sorted into a superior/inferior category or not.

To the best of our knowledge, this paper is the first attempt to build a MCDA-based tool to sort mutual funds with respect to social responsibility. We find the use of limiting profiles with open classes to be most recommended and design the sorting tool in a way that it can be instrumental for implementation in future mutual fund performance research. For example, scholars could apply multi-factor asset pricing regressions to test for significantly different risk-adjusted returns between the 5 proposed ordered categories, enriching the typical dichotomous distinction between SRI and non-SRI funds. The proposed categories could also be used to construct a factor mimicking zero-investment portfolio to control for an "ethics risk factor", following an earlier attempt by Renneboog, Ter Horst and Zhang (2008). Finally, governments might profit from the sorting tool to help regulate the supply of SRI funds (e.g. government-issued SRI labels).

MCDA: Multi-Criteria Decision Analysis
PROMETHEE: Preference Ranking Organization METHod for Enriched Evaluation
SRI: Socially Responsible Investing

2. Methodology and data

To build the sorting tool we implement the five building blocks of the MCDA framework. The first step involves the establishment of assessment criteria. As we aim to assess social responsibility on the aggregate level of a fund, and not on the individual level of a single stock, we opt for criteria that describe the investment process of a fund in terms of social responsibility, hence we refer to process-oriented social responsibility. Table 1 presents our hierarchy of criteria, which was built from earlier research (Pérez-Gladish & M'Zali, 2010; De Moor, Devooght and De Bondt, 2012) and directives on SRI by the United Nations (2013) and Febelfin (2012), the Belgian federation of the financial industry.

Goal	Criteria	Subcriteria	Sub-subcriteria	Weight E1	Weight E2
Social performance indicator	Screening process and consistency	*C1. Priority screening process*		*33.15%*	*2.40%*
		Independent data gathering and analysis of sustainability	*C2. Data gathering and analysis of sustainability by independent external specialists (e.g. EIRIS)*	*2.16%*	*23.61%*
			C3. Incorporation of SRI principles established by reputable organizations (e.g. UN SRI, Febelfin)	*5.03%*	*3.27%*
			C4. Information from stakeholders and relevant NGOs	*0.56%*	*6.80%*
		Positive selection criteria	*C5. Best-in-class approach for criteria with respect to ESG criteria*	*5.74%*	*9.20%*
			C6. Use of sector specific positive criteria	*2.76%*	*2.13%*
			C7. Investment is principally (> 75%) in companies that invest in sustainable technologies	*0.49%*	*4.43%*
		Negative selection criteria	*C8. Use of categorical rejects*	*7.57%*	*2.47%*
			C9. Assessment by means of negative criteria	*7.57%*	*5.14%*
			C10. Exclusion of unsustainable technologies	*7.57%*	*3.56%*
		Monitoring and updates	*C11. A research teams checks legal and regulatory developments, trends and behavior of companies such that criteria are in line with recent societal developments*	*5.25%*	*1.97%*
			C12. Monitoring if portfolio is consistent with defined criteria (continuously, sector specific or occasion specific)	*1.75%*	*5.91%*
		Dialogue	*C13. Companies are informed about conclusions selection methodology*	*0.24%*	*1.93%*
			C14. Active engagement policy (constructive and critical dialogue with companies in portfolio)	*0.51%*	*0.93%*
			C15. Active voting policy (voting at companies' shareholder meetings)	*2.83%*	*1.34%*
	Transparency and control	Transparency	*C16. Release of qualitative information about the screening process (e.g. applied screens)*	*4.00%*	*3.90%*
			C17. Release of quantitative information about the screening process (e.g. scores)	*4.00%*	*3.90%*
			C18. Release of current portfolio	*2.23%*	*9.13%*
			C19. Compliance with external transparency guidelines (e.g. Eurosif/Belsif)	*0.91%*	*1.80%*
		C20. Board of experts		*5.56%*	*6.25%*

Table 1: Hierarchy of criteria and weights from two independent experts

The hierarchy of criteria starts from the overall goal of the MCDA analysis, followed by different levels of criteria. The 20 bottom-level criteria are used in the eventual sorting exercise. To allow for robustness checks, we use weights from two independent SRI experts (E1 and E2).

In a second step we define a set of alternatives, i.e. mutual funds. In this paper, we focus on mutual funds that are available on the Belgian market. The main reason for this is the required set of detailed documentation on the content and design of SRI funds by Febelfin, which enhances step 3 of the process, i.e. the scoring of alternatives. Table 2 presents the list of alternatives, which includes the 24 regulated SRI equity funds offered in Belgium, and a matching sample of 24 conventional equity funds. The matching of funds was realized using six criteria: fund age, fund size, fund type (i.e. accumulation or distribution of gains), geographical orientation, capitalization and investment style.

	SRI Alternative	ISIN-code		Conventional alternative	ISIN-code
A1	BNP Paribas L1 Equity World Aqua	LU0831546592	A25	Legg Mason Batterymarch Global Equity Fund A	IE00B5589395
A2	Dexia Equities L Sustainable EMU	LU0344047559	A26	Dexia Equities L Europe Innovation C	LU0344046155
A3	Dexia Equities L Sustainable Green Planet	LU0304860991	A27	KBC Equity Fund - New Shares	BE0170533070
A4	Dexia Equities L Sustainable World	LU0113400328	A28	BNP Paribas L1 Model 6 Classic	LU0377118962
A5	Dexia Sustainable Europe	BE0173540072	A29	Pictet-European Equity Selection-R	LU0130732109
A6	Dexia Sustainable North America	BE0173901779	A30	KBC Index Fund United States	BE0166769266
A7	Dexia Sustainable Pacific	BE0174191768	A31	DWS Invest Top 50 Asia	LU0145648886
A8	Dexia Sustainable World	BE0946893766	A32	Fidelity Funds - World Fund E	LU0115769746
A9	IN.flanders Index Fund	BE0175210286	A33	KBC Equity Fund - Buyback Europe	BE0174407016
A10	ING (L) Invest Sustainable Equity	LU0119216553	A34	KBC Equity Fund - Global Leaders	BE0174807132
A11	KBC Eco Fund Agri	BE6222656090	A35	Transparant B Equity	BE0935007246
A12	KBC Eco Fund Alternative Energy	BE0175280016	A36	Franklin Global Small-Mid Cap Growth	LU0144644332
A13	KBC Eco Fund Climate Change	BE0946844272	A37	R Opal Biens Réels F	FR0010563064
A14	KBC Eco Fund Sustainable Euroland	BE0175718510	A38	KBC Institutional Fund European Equity Classic	BE0176222702
A15	KBC Eco Fund Water	BE0175479063	A39	Vector Navigator C1	LU0172125329
A16	KBC Eco Fund World	BE0133741752	A40	AXA Rosenberg Global Equity Alpha Fund A	IE0008366811
A17	KBC Institutional Fund SRI Euro Equities	BE0175761940	A41	Pictet-Europe Index-R	LU0130731713
A18	KBC Institutional Fund SRI World Equity	BE0168344498	A42	SSgA World Index Equity Fund P	FR0000018277
A19	Parvest Environmental Opportunities	LU0406802339	A43	Pictet-Security-P	LU0270904781
A20	Parvest Global Environment	LU0347711466	A44	GAM Star Global Equity Inflation Focus C	IE00B5BDSJ79
A21	Parvest Sustainable Equity Europe	LU0212189012	A45	HSBC Global Investment Funds European Equity EC	LU0164863887
A22	Petercam Equities Europe Sustainable	BE0940002729	A46	Dexia Quant Equities Europe Classic C	LU0149700378
A23	Triodos Sustainable Equity Fund	LU0278271951	A47	Franklin Global Growth A	LU0122613069
A24	Triodos Sustainable Pioneer Fund	LU0278272843	A48	Universal Invest Quality Growth B	LU0124604223

Table 2: List of alternatives

The list of alternatives consists of 24 SRI and 24 matched conventional funds (incl. the ISIN code) from the Belgian market. Our sorting tool will yield in 5 categories by introducing more heterogeneity between these 2 naïve categories, which are used in SRI performance research.

Next, we need to score the alternatives with respect to the 20 criteria. For every alternative, we assess whether the different criteria apply (1) or not (0) using publicly disclosed information (e.g. fund prospectus, website information, transparency documents from the Febelfin website). The reason for using binary assessments for the individual criteria is to enhance the replicability of the sorting tool for future applications in finance, by avoiding the need for elaborate expert judgments. Since we aggregate all of these assessments across the criteria and the alternatives using MCDA techniques, the eventual scores used to build the categories are no longer dichotomous, and thus better reflect heterogeneity. The performance table can be found in online Appendix A.

Prior to calculating the scores, we also need to indicate the relative importance of the different criteria. To do so we ask two independent SRI experts to fill out a questionnaire that asks for pairwise comparisons of the different criteria (cf. online Appendix B). Asking two independent experts allows us to test for robustness of results. From these comparisons we can calculate weights for the different criteria using the analytic hierarchy process (Saaty, 1980). This is the only step where we allow for expert judgment. The weights are represented in Table 1.

In our final step we construct categories using FLOWSORT, which draws from PROMETHEE II rankings to assign alternatives to categories using central and limiting profiles. PROMETHEE is the acronym for "Preference Ranking Organization METHod for Enriched Evaluation" and was originally developed by Brans and Vincke (1985). It belongs to the outranking school of MCDA methods and starts from the notion that "one solution outranks another if it is at least as good as the other in most respects, and not too much worse in any one respect" (Belton & Stewart, 2002). Starting from preference degrees that reflect a decision maker's attitude towards the different criteria, PROMETHEE II constructs a complete ranking computing and aggregating unicriterion flows that indicate how one alternative is preferred to another for every single criterion. FLOWSORT, originally developed by Nemery and Lamboray (2008), takes the PROMETHEE II net flow scores to assess the relative position of alternatives with respect to reference profiles and hence assigns the alternatives to completely ordered categories. Two types of reference profiles can be implemented: limiting profiles or central profiles. Limiting profiles define the boundaries between the different categories. We distinguish two options: open and closed categories. On top of the intra-category boundaries, the closed option also requires a boundary on the bottom of the lowest category and a boundary on top of the highest category. That way, alternatives can also be discontinued from any possible category. We choose for open categories, as we want all funds to be assigned to a certain group to account for heterogeneity. Central profiles use representative alternatives for each group, rather than boundaries between groups. An important condition for both types of approaches is that the different categories must dominate each other. We define and implement both open limiting profiles and central profiles, building from expert information and several performance profiles that become apparent from the performance table. From the performance profiles, 5 categories become apparent and thus 4 open limiting profiles and 5 central profiles are established for each expert (cf. Table 3). We compare the sorting between both experts to test for robustness.

An important advantage of FLOWSORT over most other sorting techniques (e.g. Doumpos & Zopounidis; Araz & Ozkarahan, 2007) is that the allocation of an alternative to a group is independent from the allocation of another alternative. In addition we prefer a PROMETHEE-based ranking approach as the PROMETHEE ranking methodology has proven to be superior to other approaches in assessing process-oriented social responsibility of mutual funds (Verheyden & De Moor, 2014).

3. Results and discussion

We implement the FLOWSORT method in the Smart Picker Pro software. The ordered sorting of the funds in 5 categories can be found in Table 4. Overall we see quite consistent sorting across the two different types of profiles and the two experts, which adds robustness to the results. Most striking is the perfect consistency in the sorting of the top-tier alternatives, i.e. the SRI funds by Triodos and KBC. Triodos is a niche player in the banking industry that promotes itself as "the sustainable bank." KBC is a traditional commercial bank, but with a long-standing tradition in SRI and a holistic approach to the design of SRI funds. These result are thus not surprising and in line with generally accepted intuition in the industry.

If we compare the results between the inputs provided by both independent experts, we see some differences. Most notably, the ranking within the top group changes between Triodos and KBC. However, the FLOWSORT method has considered this difference to be insignificant and thus sorted SRI funds from both providers in the top category. This kind of additional interpretation of differences in ranking and scores is exactly the added value of FLOWSORT over the ranking and scoring tools. Besides, we see that the limiting profile sorting remains robust over the two experts; for the central profile there are some mild differences in the sorting of

Expert 1																				
Limiting profiles (open classes)																				
	C1	*C2*	*C3*	*C4*	*C5*	*C6*	*C7*	*C8*	*C9*	*C10*	*C11*	*C12*	*C13*	*C14*	*C15*	*C16*	*C17*	*C18*	*C19*	*C20*
Profile 4	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 3	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 2	1	1	1	1	0	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1
Profile 1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Central profiles																				
	C1	*C2*	*C3*	*C4*	*C5*	*C6*	*C7*	*C8*	*C9*	*C10*	*C11*	*C12*	*C13*	*C14*	*C15*	*C16*	*C17*	*C18*	*C19*	*C20*
Profile 5	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 4	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 3	1	1	1	1	0	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1
Profile 2	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Profile 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Expert 2																				
Limiting profiles (open classes)																				
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20
Profile 4	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1
Profile 3	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 2	1	1	1	1	0	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1
Profile 1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Central profiles																				
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20
Profile 5	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1
Profile 4	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1
Profile 3	1	1	1	1	0	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1
Profile 2	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Profile 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Table 3: Limiting (open classes) and central profiles elicited from two experts and performance profiles of the mutual funds
For every expert we define 4 limiting and 5 central profiles, which simply are theoretically defined alternatives with a particular score on the 20 different criteria (C1-C20). The profiles have been established from the preferences expressed by the experts and information from the performance table, which points to 5 distinguished performance profiles.

lower-tier funds. Despite the rather large differences in the expert judgments, we see that overall results are fairly robust. In addition to the robustness of the limiting profile across both experts, it is also easier to implement because one less predefined profile is required. Taking into account the implementation of these sorting groups in asset pricing regressions, the limiting profiles are also preferred because they yield more balanced groups, whereas the central profiles lead to a disparity of large and small groups.

4. Concluding remarks

To the best of our knowledge, this is the first application of the FLOWSORT technique in financial economics. From our analysis, we recommend that limiting profiles with open classes and 5 categories are used in future applications. More concretely, the proposed tool can be used in further SRI performance research to introduce more heterogeneity between funds with respect to social responsibility. One option is to implement multi-factor asset pricing regressions on the 5 categories of funds, instead of just the group of SRI vs. non-SRI funds. This approach will yield 5 risk-adjusted returns that can be tested for significant differences in a more nuanced way. The sorting categories can also be used to construct factor-mimicking portfolios to include a so-called ethics risk factor in addition to traditional risk measures (e.g. market risk, size risk, value vs. growth risk and momentum risk). Finally, our tool can be instrumental to assign social responsibility labels to mutual funds, which can be interesting for government regulators looking for curbing the use of the SRI concept for marketing motives.

Acknowledgments

The authors would like to thank Prof. Yves De Smet and all participants of the International MCDA Workshop on PROMETHEE: Research and Case Studies, for their helpful comments.

References

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Expert 1						Expert 2					
Limiting profile (open classes)			Central profile			Limiting profile (Open classes)			Central profile		
Alternatives	*Group*	*Flow*	*Alternatives*	*Group*	*Flow*	*Alternatives*	*Group*	*Flow*	*Alternatives*	*Group*	*Flow*
A23 - Triodos Sustainable Equity Fund	1	0.29691	A23 - Triodos Sustainable Equity Fund	1	0.42407	A11 - KBC Agri	1	0.26150	A11 - KBC Agri	1	0.37600
A24 - Triodos Sustainable Pioneer Fund	1	0.29691	A24 - Triodos Sustainable Pioneer Fund	1	0.42407	A12 - KBC Alternative Energy	1	0.26150	A12 - KBC Alternative Energy	1	0.37600
A11 - KBC Agri	1	0.22602	A11 - KBC Agri	1	0.35318	A13 - KBC Climate Change	1	0.26150	A13 - KBC Climate Change	1	0.37600
A12 - KBC Alternative Energy	1	0.22602	A12 - KBC Alternative Energy	1	0.35318	A14 - KBC Sustainable Euroland	1	0.26150	A14 - KBC Sustainable Euroland	1	0.37600
A13 - KBC Climate Change	1	0.22602	A13 - KBC Climate Change	1	0.35318	A15 - KBC Water	1	0.26150	A15 - KBC Water	1	0.37600
A14 - KBC Sustainable Euroland	1	0.22602	A14 - KBC Sustainable Euroland	1	0.35318	A16 - KBC World	1	0.26150	A16 - KBC World	1	0.37600
A15 - KBC Water	1	0.22602	A15 - KBC Water	1	0.35318	A23 - Triodos Sustainable Equity Fund	1	0.25350	A23 - Triodos Sustainable Equity Fund	1	0.36800
A16 - KBC World	1	0.22602	A16 - KBC World	1	0.35318	A24 - Triodos Sustainable Pioneer Fund	1	0.25350	A24 - Triodos Sustainable Pioneer Fund	1	0.36800
A2 - Dexia Sustainable EMU	2	0.22112	A2 - Dexia Sustainable EMU	2	0.34828	A2 - Dexia Sustainable EMU	2	0.21750	A2 - Dexia Sustainable EMU	2	0.33200
A4 - Dexia Sustainable World	2	0.22112	A4 - Dexia Sustainable World	2	0.34828	A4 - Dexia Sustainable World	2	0.21750	A4 - Dexia Sustainable World	2	0.33200
A5 - Dexia Sustainable Europe	2	0.22112	A5 - Dexia Sustainable Europe	2	0.34828	A5 - Dexia Sustainable Europe	2	0.21750	A5 - Dexia Sustainable Europe	2	0.33200
A6 - Dexia Sustainable North America	2	0.22112	A6 - Dexia Sustainable North America	2	0.34828	A6 - Dexia Sustainable North America	2	0.21750	A6 - Dexia Sustainable North America	2	0.33200
A7 - Dexia Sustainable Pacific	2	0.22112	A7 - Dexia Sustainable Pacific	2	0.34828	A7 - Dexia Sustainable Pacific	2	0.21750	A7 - Dexia Sustainable Pacific	2	0.33200
A8 - Dexia Sustainable World	2	0.22112	A8 - Dexia Sustainable World	2	0.34828	A8 - Dexia Sustainable World	2	0.21750	A8 - Dexia Sustainable World	2	0.33200
A9 - IN.flanders Index Fund	2	0.22112	A9 - IN.flanders Index Fund	2	0.34828	A9 - IN.flanders Index Fund	2	0.21750	A9 - IN.flanders Index Fund	2	0.33200
A17 - KBC SRI Euro Equities	2	0.22112	A17 - KBC SRI Euro Equities	2	0.34828	A17 - KBC SRI Euro Equities	2	0.21750	A17 - KBC SRI Euro Equities	2	0.33200
A18 - KBC SRI World Equity	2	0.22112	A18 - KBC SRI World Equity	2	0.34828	A18 - KBC SRI World Equity	2	0.21750	A18 - KBC SRI World Equity	2	0.33200
A21 - Parvest Sustainable Equity Europe	2	0.22112	A21 - Parvest Sustainable Equity Europe	2	0.34828	A21 - Parvest Sustainable Equity Europe	2	0.21750	A21 - Parvest Sustainable Equity Europe	2	0.33200
A22 - Petercam Equities Europe Sustainable	3	0.18768	A22 - Petercam Equities Europe Sustainable	2	0.31484	A22 - Petercam Equities Europe Sustainable	3	0.19550	A22 - Petercam Equities Europe Sustainable	2	0.31000
A10 - ING Sustainable Equity	3	0.14833	A10 - ING Sustainable Equity	2	0.27549	A1 - BNPP World Aqua	3	0.14850	A1 - BNPP World Aqua	2	0.26300
A1 - BNPP World Aqua	3	0.14092	A1 - BNPP World Aqua	3	0.26808	A10 - ING Sustainable Equity	3	0.14850	A10 - ING Sustainable Equity	2	0.26300
A19 - Parvest Environmental Opportunities	3	0.14092	A19 - Parvest Environmental Opportunities	3	0.26808	A19 - Parvest Environmental Opportunities	3	0.14850	A19 - Parvest Environmental Opportunities	2	0.26300
A20 - Parvest Global Environment	3	0.14092	A20 - Parvest Global Environment	3	0.26808	A20 - Parvest Global Environment	3	0.14850	A20 - Parvest Global Environment	2	0.26300
A3 - Dexia Sustainable Green Planet	3	0.07254	A3 - Dexia Sustainable Green Planet	3	0.19970	A3 - Dexia Sustainable Green Planet	3	0.09650	A3 - Dexia Sustainable Green Planet	3	0.21100
A28 - BNPP Model 6 Classic	4	-0.32624	A28 - BNPP Model 6 Classic	4	-0.19908	A28 - BNPP Model 6 Classic	4	-0.18550	A28 - BNPP Model 6 Classic	3	-0.07100
A27 - KBC New Shares	4	-0.45460	A27 - KBC New Shares	4	-0.32743	A27 - KBC New Shares	4	-0.25650	A27 - KBC New Shares	4	-0.14200
A30 - KBC Index United States	4	-0.45460	A30 - KBC Index United States	4	-0.32743	A30 - KBC Index United States	4	-0.25650	A30 - KBC Index United States	4	-0.14200
A33 - KBC Buyback Europe	4	-0.45460	A33 - KBC Buyback Europe	4	-0.32743	A33 - KBC Buyback Europe	4	-0.25650	A33 - KBC Buyback Europe	4	-0.14200
A34 - KBC Global Leaders	4	-0.45460	A34 - KBC Global Leaders	4	-0.32743	A34 - KBC Global Leaders	4	-0.25650	A34 - KBC Global Leaders	4	-0.14200
A38 - KBC European Equity	4	-0.45460	A38 - KBC European Equity	4	-0.32743	A38 - KBC European Equity	4	-0.25650	A38 - KBC European Equity	4	-0.14200
A26 - Dexia Europe Innovation	4	-0.47622	A26 - Dexia Europe Innovation	4	-0.34906	A26 - Dexia Europe Innovation	4	-0.49250	A26 - Dexia Europe Innovation	4	-0.37800
A40 - Axa Rosenberg	4	-0.47622	A40 - Axa Rosenberg	4	-0.34906	A40 - Axa Rosenberg	4	-0.49250	A40 - Axa Rosenberg	4	-0.37800
A45 - HSBC European Equity	4	-0.47622	A45 - HSBC European Equity	4	-0.34906	A45 - HSBC European Equity	4	-0.49250	A45 - HSBC European Equity	4	-0.37800
A46 - Dexia Europe Classic	4	-0.47622	A46 - Dexia Europe Classic	4	-0.34906	A46 - Dexia Europe Classic	4	-0.49250	A46 - Dexia Europe Classic	4	-0.37800
A32 - Fidelity World Fund	5	-0.55201	A32 - Fidelity World Fund	4	-0.42485	A32 - Fidelity World Fund	5	-0.51750	A32 - Fidelity World Fund	4	-0.40300
A42 - SSgA World Index Equity	5	-0.55201	A42 - SSgA World Index Equity	4	-0.42485	A42 - SSgA World Index Equity	5	-0.51750	A42 - SSgA World Index Equity	4	-0.40300
A36 - Franklin Small-Mid Cap Growth	5	-0.55712	A36 - Franklin Small-Mid Cap Growth	4	-0.42996	A36 - Franklin Small-Mid Cap Growth	5	-0.52650	A36 - Franklin Small-Mid Cap Growth	4	-0.41200
A47 - Franklin Global Growth	5	-0.55712	A47 - Franklin Global Growth	4	-0.42996	A47 - Franklin Global Growth	5	-0.52650	A47 - Franklin Global Growth	4	-0.41200
A35 - Transparant B Equity	5	-0.56002	A35 - Transparant B Equity	4	-0.43286	A29 - Pictet European Equity Selection	5	-0.53950	A29 - Pictet European Equity Selection	4	-0.42500
A29 - Pictet European Equity Selection	5	-0.58545	A29 - Pictet European Equity Selection	5	-0.45829	A31 - DWS Top 50 Asia	5	-0.53950	A31 - DWS Top 50 Asia	4	-0.42500
A31 - DWS Top 50 Asia	5	-0.58545	A31 - DWS Top 50 Asia	5	-0.45829	A37 - R Opal Biens Reels	5	-0.53950	A37 - R Opal Biens Reels	4	-0.42500
A37 - R Opal Biens Reels	5	-0.58545	A37 - R Opal Biens Reels	5	-0.45829	A41 - Pictet Europe Index	5	-0.53950	A41 - Pictet Europe Index	4	-0.42500
A41 - Pictet Europe Index	5	-0.58545	A41 - Pictet Europe Index	5	-0.45829	A43 - Pictet Security P	5	-0.53950	A43 - Pictet Security P	4	-0.42500
A43 - Pictet Security P	5	-0.58545	A43 - Pictet Security P	5	-0.45829	A35 - Transparant B Equity	5	-0.54750	A35 - Transparant B Equity	5	-0.43300
A25 - Legg Mason Batterymarch	5	-0.63581	A25 - Legg Mason Batterymarch	5	-0.50865	A25 - Legg Mason Batterymarch	5	-0.57250	A25 - Legg Mason Batterymarch	5	-0.45800
A39 - Vector Navigator C1	5	-0.63581	A39 - Vector Navigator C1	5	-0.50865	A39 - Vector Navigator C1	5	-0.57250	A39 - Vector Navigator C1	5	-0.45800
A44 - GAM Star Global Equity Inflation	5	-0.63581	A44 - GAM Star Global Equity Inflation	5	-0.50865	A44 - GAM Star Global Equity Inflation	5	-0.57250	A44 - GAM Star Global Equity Inflation	5	-0.45800
A48 - Universal Invest Quality Growth	5	-0.63581	A48 - Universal Invest Quality Growth	5	-0.50865	A48 - Universal Invest Quality Growth	5	-0.57250	A48 - Universal Invest Quality Growth	5	-0.45800

Table 4: Sorted funds

For both types of profiles and both experts, the alternatives are sorted into five categories going from “high” social responsibility to “low” social responsibility. The sorting is based on the PROMETHEE II net flows.

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